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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,696	12/02/2003	Hsien-Rong Liang		1990

7590 12/05/2008  
TROXELL LAW OFFICE PLLC  
5205 LEESBURG PIKE  
SUITE 1404  
FALLS CHURCH, VA 22041

EXAMINER
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FLANDERS, ANDREW C

ART UNIT	PAPER NUMBER
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2614

MAIL DATE	DELIVERY MODE
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12/05/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/724,696

**Applicant(s)**

LIANG, HSIEN-RONG

**Examiner**

ANDREW C. FLANDERS

**Art Unit**

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 05 August 2008 have been fully considered but they are not persuasive.

Applicant alleges:

"Moon et al. teach a MPEG portable sound reproducing system, as shown in Fig. 2. On p. 5 of the outstanding Office Action, the Examiner has admitted that Moon discloses that the control and the media decoding is performed by the CPU, while Applicant employs two distinct modules. However, the Examiner argues that to do so would be obvious and produce no new or unexpected results. In response, Applicant submits that employing two discrete modules offers greater reliability and allows cheaper, less powerful processing chips to be used. Furthermore, it is possible to upgrade the decoding chip alone when a new audio format is inevitably introduced without necessitating replacing the entire CPU."

Examiner respectfully disagrees. Examiner submits that the greater reliability and using cheaper less powerful chips as well as separate upgrading are not new nor unexpected results. Separating the processing tasks of a single chip to be performed on a separate single chip is known. For example, Huang U.S. 6,119,091 discloses numerous different chips in Fig. 2 in a device that have been configured to perform a single process (i.e. dsp, encoder, decoder.. etc). This separation allows Huang to allocate tasks to lesser chips rather than overburdening the main chip (i.e. microcontroller). These lesser chips would be inherently less expensive and less powerful as they need not be as complex as the main chip. Further these chips could easily be upgraded to allow for a new audio format. It would have been desirable to build the device to be able to replace the encoder and decoder of the device as new

audio compression standards and formats are constantly being released. Rather than replacing the whole device, one need only replace the audio encoder/decoding chips.

Applicant further alleges:

"On p. 5 of the outstanding Office Action, the Examiner has not cited a reference teaching wireless transmission (with the exception of the FM transmission of Thielen, which is no longer recited), but has instead argued that wireless transmitters are well known. Applicant respectfully traverses the Examiner's statement in Official Notice. It is always incumbent upon the Examiner to find a reference to support a rejection. According to "Formulating and Communicating Rejections Under 35 U.S.C. for Application," the Examiner has to factually support any prima facie case of obviousness. If the Examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of non-obviousness. The example provided of the vague wireless disclosure of Shanahan does not supply this deficiency, nor does it teach any applicability to Moon et al."

Examiner respectfully disagrees. Applicant states that a prima facie case of obviousness has not been produced but does not explain why. Examiner submits that a prima facie case of obviousness has been met. Examiner has clearly articulated that deficiencies of the Moon reference in regards to the lacking of an explicit teaching of a wireless transmitter, See OA pages 4 and 5. Examiner then explained that it was notoriously well known that wireless transmitters exist; also acknowledged by the Applicant in the response. Examiner also provided rationale as to why it would be obvious to modify Moon's transmitter to operate as a wireless transmitter, i.e. "obvious to try" and "provides a quick and tangle free connection to various device," OA page 4.

Furthermore, the assertion that the official notice is not supported with evidentiary teachings is moot. Examiner clearly shows a teaching of a wireless

transmitter in a computer type of device such as the one taught by Moon, see the teachings of Shanahan in page 5 of the OA. Applicant states that this disclosure does not cure the deficiencies but does not provide rationale as to why. Examiner submits a clear prima facie case obviousness has been made as the official office action shows: the difference between the prior art and the claimed invention (i.e. deficiency of the wireless transmitter in Moon), teaching in another reference (Shanahan, and official notice), and clear rationale as to why it would be obvious to modify (obvious to try to allow a quick tangle free connection).

Applicant further alleges:

Furthermore, none of the cited references teach or suggest: wherein the wireless transmitter circuit and wireless signals of the transmitter are further configured to comply with AM (Amplitude Modulation) signals, Bluetooth signals, or IEEE 802, 11A, B (Institute of Electrical and Electronic Engineers 802, 11A, B), as recited in claim 6.

Examiner agree, however, this argument is moot in view of the new rejection necessitated by Applicant's amendments.

Applicant further alleges:

Appellant submits that the above-presented arguments clearly indicate that the Examiner has failed to provide an "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" for combining selected elements of Moon et al. with selected elements of Hirota et al, and/or Thielen. KSR at 1396 (citing In re Kahn at 988). Clearly, such a combination is not an acceptable combination under 35 U.S.C. §103. The rejections of Appellant's claims as being rendered by the aforementioned combinations of references under 35 U.S.C. §103 are respectfully traversed.

Examiner respectfully disagrees. Clear rational was articulated in the previous rejection. Specifically, in the combination of Moon in view of Hiroa, it is stated:

"It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Hirota to the player disclosed by Moon. The removable card feature allows the music to be enjoyed as a variety of locations as taught by Hirota in paras 1 - 8. Moon also realizes that it is desirable to include an expandable memory via the inclusion of an Extended ROM interface 511."

In the combination of Moon in view of Hiroa and in further view of Thielen it is stated:

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the teachings of the wireless playback through a vehicle as taught by Thielen to the combination. One would have been motivated to do so to avoid replacing the existing vehicle stereo in a user of the combination and to avoid non seamless fixed installation of the device using accessories as well as various Other reasons disclosed in paras 22 - 26 of Thielen."

Examiner submits that these are clear articulations of rational and reasoning as to why the reference can be combined. If Applicant wishes to maintain this argument, reasoning as to why they are not, rather than a conclusory statement of them not being, clear articulations of rational, is requested.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2 – 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Moon (U.S. Patent 7,065,417) in view of Hirota (U.S. Patent Application Publication 2003/0221103) and in further view of Thielen (U.S. Patent Application Publication 2004/0117442).

Regarding **Claim 8**, Moon discloses:

A multipurpose media player memory card reader (fig. 2) comprising:

an upper cover; a lower cover (covers inherent casing of device shown in Fig. 2), and a circuit board (Fig. 2).

Moon does not disclose the circuit board including a card reader circuit and memory card slots. However, it was notoriously well known in the art at the time of the invention to use a flash memory card reader and flash memory card for the purpose of playing music in a device such as the one disclosed by Moon. Hirota discloses a player (Figs. 2 and 4) that uses a flash memory card (109) to store music for playback. Applying this memory card and reader to function via the Extended ROM Interface (511) of Moon discloses:

the circuit board including a card reader circuit (Flash ROM controller 527 of Moon as modified by Hirota, controls the memory card and reading device taught by Hirota) and memory card slots (206 of Hirota as applied to Moon).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Hirota to the player disclosed by Moon. The removable card feature allows the music to be enjoyed as a variety of locations as taught by Hirota in paras 1 - 8. Moon also realizes that it is desirable to include an expandable memory via the inclusion of an Extended ROM interface 511.

The combination further discloses:

the circuit board including a card reader port (800), a control circuit (501), a multimedia player circuit (501), a battery (100), memory (601), a socket (703), a transmitter circuit (523), a transmitter (800), and an electric power socket (adaptor to 200), and an outlet (output to headphones 700).

Moon does not disclose a separate card reader port and transmitter, a separate control circuit and multimedia player circuit or that the transmitter is wireless.

Moon discloses the transmitter in a very general sense. Moon states that the transmitter/receiver 800 can transmit or receive data from a number of various sources. This type of transmission is the same transmission provided by the transmitter and card reader port of the instant Application. While Moon isn't very detailed in this description of the transmission port, it meets the standards disclosed by Applicant. Numerous types of transmission mediums and connections are notoriously well known in the art.



Simply separating them into two connections/devices would have been obvious to try does not produce any new or unexpected results.

Moon also discloses that the control is performed by the CPU as well as the media decoding; col. 4. Applicant performs these processes using two distinct modules. Separating the two devices instead of including them in the same package would have been obvious to one of ordinary skill in the art to try does not produce any new or unexpected results.

Further, Examiner takes official notice that wireless transmitters are notoriously well known in the art and it would have been obvious to use one as the transmission/reception device taught by Moon in order to allow a quick, tangle free connection to the various devices. Shanahan (U.S. 6,496,692) for example teaches that wireless and wired links between devices such as Moons and its connected device are notoriously well known; col. 3 lines 15 - 25.

The remaining limitations of claim 1 are considered to not further limit the claim as they do not limit the particular structure. The remaining elements are only functionally upon certain conditions and are not required to actually be performed. For example, the system flow only occurs upon inserting a memory card the transmitter circuit only transmits multimedia data when outputting, the battery only provides electric power when the circuits are in operation and the card reader operates only when playing multimedia data. Please see MPEP 2111.04.

For the purpose of expediting prosecution, the remaining limitations will be given weight in regards to prior art.

The combination further discloses:

wherein the circuit board is configured so that when a memory card is inserted into a memory card slot, the card circuit reads data within the memory card or the control circuit read data stored within the memory (para 171, 172; step 1011 of Hirota), the control circuit differentiates whether or not the data is multimedia data (the CPU of Hirota determines where the music data is stored; either the encrypted memory portion 426 or the user data portion 427; paras 105-110 and Fig. 6; if it is to be read from the authenticated area, it is determined to be playable music; also see paras 79 – 83 which disclose that the PC may store various forms of data to the memory card, indicating an inherent determination must be performed to ascertain the type of the data being read), and the multimedia data is transmitted to the multimedia player circuit (S909 Fig. 1), and the multimedia data is converted to sound signals and output through an outlet (S910; playback; it should be noted that fig 11 shows the embodiment for the player 210, but the disclosure also indicates this playback can be performed by the PC; para 56 and 148),

wherein the wireless transmitter circuit and the transmitter are configured to transmit multimedia data as wireless signals (i.e. controller 523 of moon controls data input and output through the transmitter/receiver; this transmitter can be a wireless transmitter as shown above).

The combination does not explicitly disclose wherein multimedia equipment of a vehicle receiving the wireless signals can play the multimedia data.

Thielen discloses a portable player that has the ability to play downloaded music in a vehicle via the use of an FM transmission (abstract and other various passages). Applying this to the combination discloses whereupon multimedia equipment of a vehicle receiving the wireless signals can play the multimedia data.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the teachings of the wireless playback through a vehicle as taught by Thielen to the combination. One would have been motivated to do so to avoid replacing the existing vehicle stereo in a user of the combination and to avoid non seamless fixed installation of the device using accessories as well as various other reasons disclosed in paras 22 – 26 of Thielen.

The combination further discloses:

wherein the battery provides electric power required when the control circuit and the multimedia player circuit are in operation, and the card reader port connected to a computer port enables recharging of the batter (i.e. the power supply of Moon is a battery, which supplies power to the various devices; col. 3; this battery is rechargeable through power received through an adaptor; col. 3);

whrein the card reader is adapted to reciprocally connect to a computer port through a connector port of the card reader (i.e. connect via the transmitter receiver of Moon to a PC; col. 5), so that data is saved within the memory card and the memory

through the card reader(i.e. the flash card of Hirota can save any type of user data, the connection via Moon is used to transmit data to or from the device).

Regarding **Claim 2**, in addition to the elements stated above regarding claim 8 the combination further discloses:

wherein the card reader port is a USB port (Universal Serial Bus), COM1/COM2 communication ports, or PRINT PORT (i.e. the transmitter/receiver of Moon can be any one of the variety of known connections; for example a USB, RS232 or Parallel port as disclosed in Shanahan).

Regarding **Claim 3**, in addition to the elements stated above regarding claim 8 the combination further discloses:

wherein the memory card slots are compatible with CF card (Compact Flash Card), MS card (Memory Stick Card) and SM card (Smart Media Card) (memory card of is any of known format of media cards at the time of the invention; paras 2, 4 and 251).

Regarding **Claim 4**, in addition to the elements stated above regarding claim 8 the combination further discloses:

wherein the memory is RAM (Random Access Memory), DRAM (Dynamic Random Access Memory), SRAM (Static Random Access Memory)), SDRAM

(Synchronous Dynamic Random Access Memory), or FLASH (i.e. RAM element 601 of Moon)

Regarding **Claim 5**, in addition to the elements stated above regarding claim 8 the combination further discloses:

wherein the battery is carbon zinc battery, mercury battery, lithium battery, or nickel-hydrogen battery (col. 3 of Moon lines 5 – 55).

Regarding **Claim 6**, in addition to the elements stated above regarding claim 8 the combination fails to explicitly disclose:

wherein the wireless transmitter circuit and wireless signals of the transmitter are further configured to comply with AM (Amplitude Modulation) signals, Bluetooth signals, or IEEE 802, 11A, B (Institute of Electrical and Electronic Engineers 802, 11A, B).

However, Thielen discloses an FM transmitter. Modifying the FM transmitter to operate as an AM transmitter would have been notoriously well known in the art. Thielen acknowledges that the receiver portion can easily be adapted to operate to receive AM signals; para 119. Applying that to the FM receiver also would be obvious to one of ordinary skill in the art as it is a notoriously well known form of wireless communication of audio signals. It would have been obvious to try as the two wireless transmissions are so closely related and it would have been desirable to have an AM and FM transmitter in Thielen for times when no useable FM frequency would be available.

Regarding **Claim 7**, in addition to the elements stated above regarding claim 8 the combination further discloses:

wherein a transformer, and a vehicle usage plug are connected to the electric power socket (power adapted for supplying power to Moons battery; col. 3; exact adapter is not disclosed, but any number of adapters are notoriously well known in the art an obvious to try).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANDREW C. FLANDERS** whose telephone number is (571)272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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